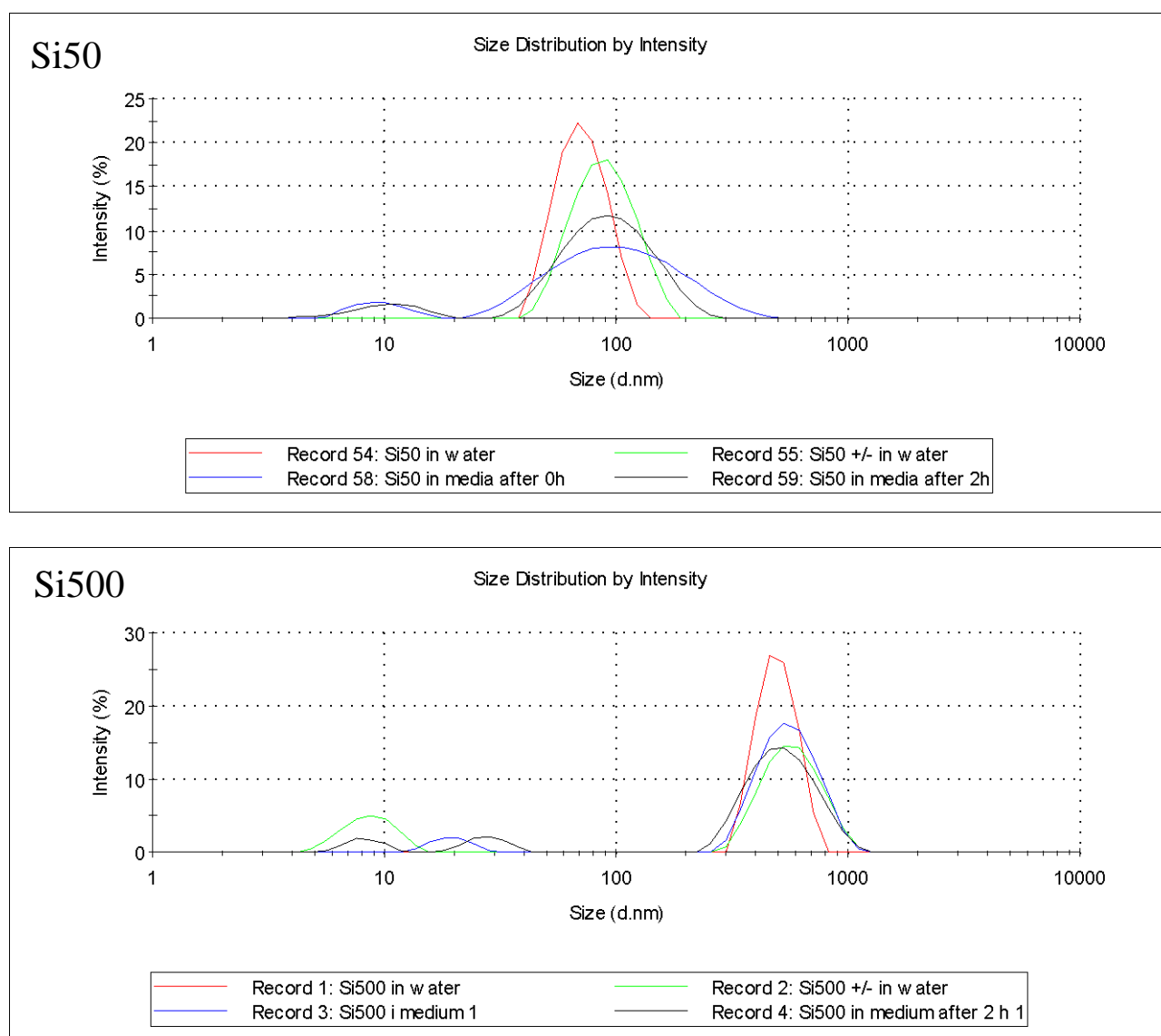
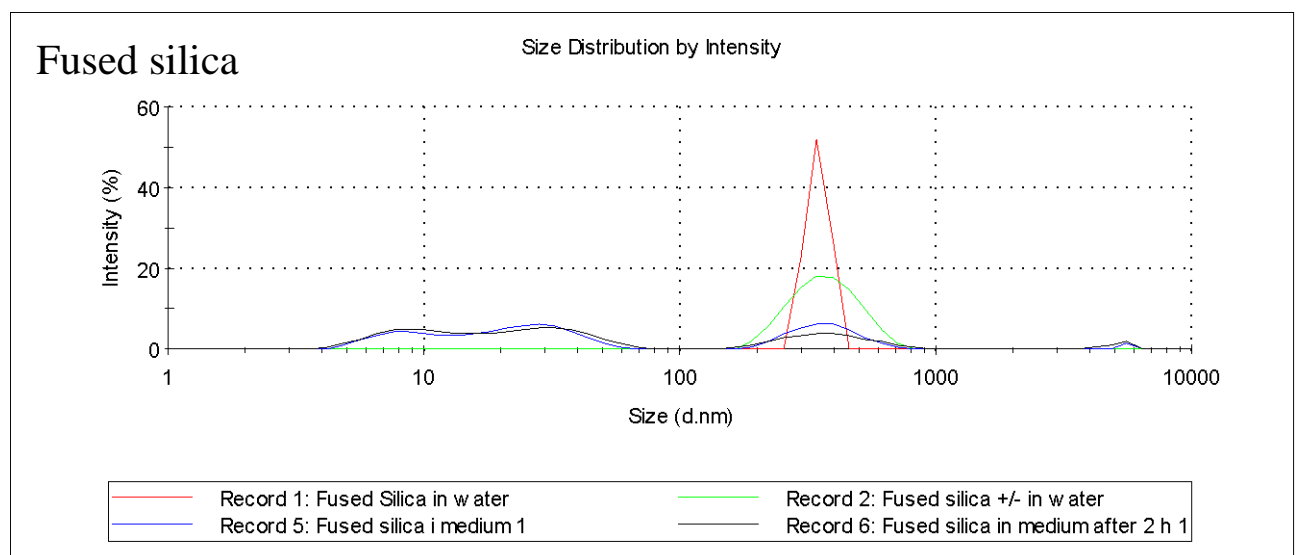
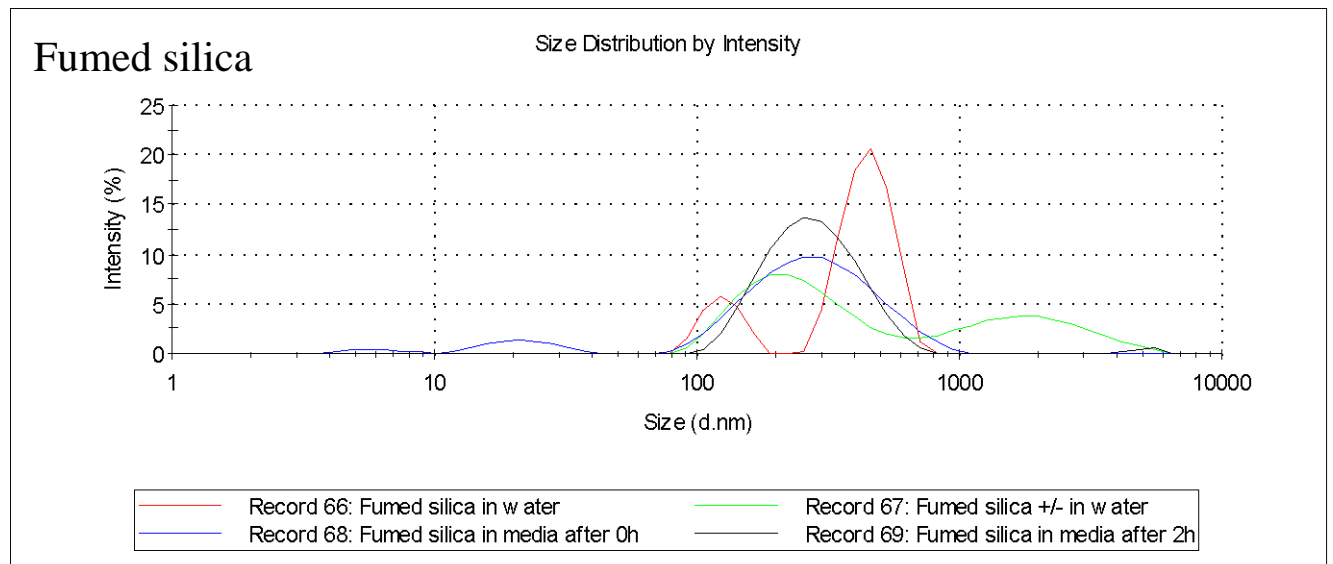


## Additional file 1



**Figure 1. Hydrodynamic sizes of Si50 and Si500 particles in water and in culture medium.**

The hydrodynamic sizes of the different particles were determined by dynamic light scattering (DLS). The particles (100 µg/ml) were dissolved in sterile water (red line), and in sterile water with BSA and PBS added after sonication (+/- green line), as described in Materials and Methods. The particles (100 µg/ml) supplemented with BSA/ PBS were also dispersed in DMEM culture medium plus 10% FCS, and instantly monitored by DLS (blue line) and subsequently after 2 h (black line). The figure is representative for two experiments.



**Figure 2. Hydrodynamic sizes of fumed and fused silica particles in water and in culture medium.**

The hydrodynamic sizes of the different particles were determined by dynamic light scattering (DLS). The particles (100 µg/ml) were dissolved in sterile water (red line), and in sterile water with BSA and PBS added after sonication (+/- green line), as described in Materials and Methods. The particles (100 µg/ml) supplemented with BSA/ PBS were also dispersed in DMEM culture medium plus 10% FCS, and instantly monitored by DLS (blue line) and subsequently after 2 h (black line). The fused particles only include the smallest fraction after wet sedimentation as depicted by \*\* in Table 1. The figure is representative for two experiments.